

State of the Hanford Site
Richland, Washington
March 16, 2011
Meeting Notes

Agencies Overviews

The Department of Energy Richland Operations Office (DOE-RL): The message from the DOE Office of Environmental Management is that cleanup is a responsibility, an obligation; it is not discretionary. The Environmental Management portfolio is one of our nation's largest liabilities. We have a responsibility to future generations to relieve them of this environmental and financial liability. The Hanford 2015 Vision guides cleanup and is consistent with regulatory agencies, Tribal Nations and stakeholder values: Clean up the River Corridor; demolish the Plutonium Finishing Plant; clean up the groundwater to stop contaminants from getting to the river and contain and clean up Central Plateau groundwater contaminants. Pursuing this cleanup approach will reduce the active cleanup footprint to less than 75 square miles by 2015.

The Department of Energy Office of River Protection (DOE-ORP): This year is focused on integration at ORP where the tank waste treatment mission is viewed as a single system.

The DOE-ORP has developed a 2016 cleanup vision. It is to:

- deliver on regulatory commitments to the State of Washington and protect the Columbia River;
- complete construction and commission 16 of 18 Waste Treatment Plant facilities (the goal is to begin making glass in the low-activity waste (LAW) facility by 2016); and
- develop and deploy technologies for supplemental treatment, secondary waste, retrievals and waste delivery.

DOE-ORP and its contractors have made great strides in addressing one of its hardest challenges – retrieving tank waste. This summer we plan to use a very promising technology – the mobile arm retrieval system (MARS) – to retrieve waste from the tanks. The MARS is deployed through a newly installed 42' riser providing greater access to the waste. Additionally, we have a "tool box" of more than 10 other retrieval technologies that we are using to accomplish this mission.

(The DOE-RL and DOE-ORP presentations are available at
www.hanford.gov/files.cfm/DOE_2015_Vision_Rev3.4.pdf)

Washington State Department of Ecology (Ecology): Ecology spoke of its unique role being part of the cleanup team but providing the (regulatory) oversight to protect the community.

U.S. Environmental Protection Agency (EPA): EPA stated that although the President's (2012) budget looks good, it needs to look better – cannot do all the cleanup work that we need to do. EPA wants to see the River Corridor work finished; K-Basin sludge off the river; Central Plateau waste sites addressed and cleanup of the Plutonium Finishing Plan continue.

Public Issues/Dialogue

Comment: I want to thank DOE for its support for site wide safety standards - stop work, beryllium, and lockout-tagout. The workers appreciate those efforts. But it is not enough to have these measures in place. You need to have the support of the contractors and workers. This is not the case in Washington River Protection Solutions. DOE talks with the workers on how the safety program is run, but workers cannot bring up safety issues without fear of losing their jobs, fear of retaliation.

Comment: Senior managers are responsive to concerns. Despite all the information on beryllium (Be), people are afraid to be tested, to stop work. There is no stop work at the construction site. Has there been any change?

Answer: DOE-ORP: As stated at the Monday (March 14) employee meeting, some of the safety concerns brought to the Employee Concerns Program are under investigation at this time. DOE needs to understand what happened. We have involved the facility (safety) representatives. DOE does not support any behavior that leads to a chilling effect. DOE is committed to a robust safety culture. I am personally committed to such a culture.

I have been heavily involved in the beryllium program working with the Beryllium Awareness Group (BAG), the Hanford Atomic Metal Trades Council (HAMTC), and Department of Energy program managers. Since the Health, Safety and Security assessment, there has been renewed emphasis on all aspects of beryllium awareness and protection. The contractor presidents are going out to the workforce to discuss this program and encouraging workers to sign up for the voluntary Be assessment program. I see the Hanford Beryllium Program evolving into a "best in class" program. At our Monday (March 14) meeting with former Hanford workers, 40 individuals signed up for the voluntary Be assessment program. We are getting out the word.

DOE-RL: What DOE says about the beryllium program is not important. It is what the workers are saying about it that really matters. We are getting feedback from the BAG and HAMTC that we can make available to you.

Comment: This is what the cleanup budget (2012) means for the site and cleanup progress. It means all work at the plutonium finishing plant (PFP) and transuranic (TRU) waste retrieval would stop. All that cleanup work would end. This is shocking especially after we've made cleanup progress with the stimulus funds. Look at what's going on with the nation, the region – stimulus funds did a lot of good. I am very concerned with the possibility of stopping TRU and PFP work. If this work is stopped, it will take three years to get it back on track and cost even more money. What is DOE doing not to stop this work in 2012? What is being scrubbed to get more cleanup dollars? Are you looking at the \$780M in central services and the \$200M in site services?

Answer: DOE-RL: The DOE-RL compliance budget for 2012 is \$1.389B; the President's budget for 2012 is \$1.006B – a difference of \$383M. DOE has established a team of federal staff to scrub every dollar everywhere. This effort will take several months and we will make available what we find. We are looking for dollars to go to PFP. We've trained a lot of people to work in that facility, which is a high hazard facility. We plan to do what you suggested.

Comment: Be very clear (to the public) what you are scrubbing; what you are looking at. We are not just talking about impacting progress. TRU in the soil is not good and there are risks from PFP. The public needs to see/know about these risks.

Answer: Ecology: These two projects are important to the State. PFP has a legal (TPA) driver to be done by 2016. It makes sense to continue with the trained workforce to get this hazardous facility gone. We agree on the need to maintain some level of activity for TRU certification and to keep the newly trained workforce. The State is willing to sit down with DOE and look at other work to keep these two activities going. We are willing to try and find places to cut.

Comment: I am representing the Enterprise employees. The Hanford Advisory Board issued advice in 2006 to bring the Enterprise employees back into the benefits system. DOE-Richland Operations Office (DOE-RL) made it clear at the Monday (March 14) employee meeting that the local office punted this issue. They did all that they could. Who do I address next? How do I spell their name(s)?

Answer: DOE-RL: DOE-RL did not punt the issue. We do not have the authority to make that decision. Three DOE-Headquarters organizations were involved in that decision: The Office of Environmental Management, General Counsel and the Office of Management Assessment. (The DOE-RL Director of Communication was identified to work with this individual to provide additional information.)

Comment: Without Yucca Mountain, Hanford will become a nuclear waste dump by default. What other options are there?

Answer: DOE-ORP: There is a Blue Ribbon Commission looking at this question. There will not be a national repository open when the Waste Treatment Plant begins producing glass in 2019. We are waiting for the Commission to tell us their decision. Until then DOE-ORP will provide safe interim storage.

Answer: Ecology: The State of Washington is very concerned and filed a lawsuit against the Department of Energy for pulling the Yucca Mountain license. The State believes science not politics should make that decision. We will not have a deep geologic repository when Hanford starts making glass; we will work with DOE to permit an interim facility.

Comment: I was injured at the site nine years ago. I have the same concern now as I had then: we need to know what is evaporated into the air. How much and what is vented in the (tank) evaporation campaigns? What is being put into the air?

Answer: DOE-ORP: Vapor exposure(s) occurred last year. A number of studies were conducted and immediate mitigating actions were put in place, which seem to be effective. There has not been a significant vapor exposure since that time. DOE-ORP is in compliance with the State's monitoring requirements. We are not in violation of any regulations or laws.

Comment: I was told when I was hurt that no guidelines were violated. What is that? It is nice that nothing was violated. National Institute for Occupational Safety and Health (NIOSH) and Centers for Disease Control (CDC) consider lower (exposure) standards now. What is the level of stuff out there now? No information is being provided when one applies to a worker compensation program.

Answer: DOE-ORP: I do not have the specifics from the exposure studies. Constituents were analyzed (broken down). There is some uncertainty as to what effects they have on the human body. We do evaluate daily and try to mitigate future effects. We could install a more expensive program to determine what is out there with no guarantee that we would get better results. (DOE-ORP committed to provide additional information to the commenter on how much, where and when.)

Comment: I read in the newspaper that Ecology and Government Accountability Office (GAO) are less than enamored with the groundwater models. The Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS) is going to come out. Do not rush the EIS until you satisfy their concerns about the groundwater modeling.

Answer: DOE-RL: DOE is committed to looking at the GAO report. We are looking at it with Ecology and EPA. We do not want to negate the importance of the EIS.

Answer: Ecology: Their concerns were not about modeling in the EIS, but about RESRAD. DOE is now moving to a different type of groundwater model for the River Corridor and Central Plateau.

Comment: The Waste Treatment Plant (WTP) is the facility under construction to handle high-level waste stored in underground tanks. We've read about problems with the design, problems with the pretreatment process, and about questions raised by workers. The DNFSB has questioned DOE on the adequacy of its safety margin when mixing waste to ensure that there would not be a hydrogen explosion. I am concerned that we are designing to tolerate and not prevent an incident. There was a letter from DOE to the DNFSB regarding alleged witness tampering. I have concerns about Hanford's safety culture. There are a number of data points that show employees are concerned about raising safety issues. There are concerns about the facility's safety design and short cuts taken. Given recent events in Japan, we need a robust design and a facility that will operate. Is DOE learning any lessons from what happened in Japan? Are you relooking at the robustness of WTP's design? Are you tackling concerns about the safety culture? Are you concerned that the employees are concerned about raising safety issues and their fear of retaliation? It would appear that DOE is not looking into these allegations.

Answer: DOE-ORP: Regarding the events in Japan, the WTP and the vitrification process are different from the Japanese nuclear facility. There are a lot of lessons to be learned and DOE is closely following those events.

WTP technical issues continue to be carried forward. We continue to proof the design and validate and confirm the design of the plant.

The safety culture is very important to DOE. We have in place a number of safety programs and tools – Integrated Safety Management System, construction management, and nuclear safety. We conduct a number of peer reviews and investigations. DNFSB keeps us honest. We see a daily commitment to safety. We've asked DOE-HQ Office of Health, Safety and Security to come in and assess the allegations of a "chilling" environment. DOE has been and remains committed to safety. We require our contractors (Bechtel National, Inc., and Washington River Protection Solutions) be committed to safety. They bring a strong nuclear safety culture.

Comment: I am concerned about the chilling effect and the inability to stop work anywhere on this site. (The Hanford Advisory Board issued Stop Work Advice that was supported by the regulatory agencies.) Every one of the companies signed on to this, but some management thinks differently. Four years ago

under Shirley Olinger we got this fixed. Contractors have changed – you need to fix this again. You will not get efficiencies until people have the ability to “stop work.” Stop Work is the best opportunity to save money. If there is a serious accident, you will lose every economy gained by cutting corners. Safety is not an option. The Hanford Advisory Board Health, Safety and Environmental Protection committee is looking at this issue and how to fix it.

Answer: DOE-ORP: DOE shares your commitment to safety and stop work. A major safety-related incident would have tremendous consequences. We need a strict, high-level of safety compliance. We are looking forward to understanding the RadCon issue raised Monday (March 14) at the employee meeting. We need a balanced, informational starting point. If we do not have the right safety environment, we will pay for it.

Comment: I would like to address the future of the skilled, nuclear workforce. According to DOE, the site is experiencing an annual 5% attrition rate. Over five years, 25% of our most skilled, knowledgeable workers will be gone. We need to continue to grow the younger workforce and ensure they receive the mentoring that is critical. Do not lay off workers. Continue to grow so that you have a confident workforce in 2016.

Answer: DOE-ORP: I agree. It would be a travesty if we cannot transition a skilled workforce. DOE is looking at a program where we could bring back workers to mentor other workers. We are looking at how to transfer skills into the new workforce. We are thinking out of the box.

Answer: DOE-RL: Ideally we would like to do succession planning, but the budget is not ideal. We are looking for innovative ways to address this issue.

Comment: WTP is a complex structure. Today 80% of the design is complete. Was the design-build approach good or not so good? If WTP does not work, what is the contingency plan?

Answer: DOE-ORP: There is no active contingency should WTP not work. The design-build approach is not optimal as we found with the cost growth. We need to demonstrate competency in executing the rest of the plant. A few challenging technical issues remain, e.g., vessels, hydrogen build up. Independent peer reviews show an 80% confidence level to meet the schedule with the given budget. (Asking more additional monies erodes confidence.) Project confidence is rising. We are not done yet; still have some remaining technical issues to address.

Comment: I am concerned about closing the single-shell tanks. What does empty mean? Getting everything out of the tanks will cost a lot of money and take a lot of time.

Answer: DOE-ORP: The Consent Decree states (removal of) 99% of the volume. There are no liquids in the single-shell tanks. DOE-ORP believes the Mobile Arm Retrieval System (MARS) is a winning technology. It is a robust system designed to get at the heel in the bottom of the tank. It is a high volume, high capacity retrieval system. This technology was demonstrated at the Cold Test Facility and we plan to deploy it in July (2011). Although a very promising technology for the difficult tanks, MARS is not the answer for all the tanks.

Comment: That may be alright. Ten-fifteen years ago, we were planning to pump out all the liquids with a standard pump, dry out the tanks, fill them with contaminated soil and equipment and put a

cover over them. I still think you should revisit the 99% removal of liquids. That would mean a lot of hard, costly work ahead of you.

Answer: DOE-ORP: Tank closure discussions, including 99% removal for closure, are underway with the regulatory agencies and stakeholders. This will be addressed through negotiations.

Answer: Ecology: The language reads 99% or limit of technology. The agencies need to examine the amount of time and money required to reach that 99% removal level. The State's concern is risk. Given the amount of waste spilled into cribs, ponds, and ditches, we want to try to lower the risks from the tanks. DOE and Ecology will be discussing these issues, including the best way to use limited funds.

Comment: Congratulations for pulling off a great State of the Site meeting. The attendance is good and I am impressed with the conversation.

Can someone explain "min safe" in the context of the budget?

Answer: DOE-RL: DOE looks at all the potential hazards associated with nuclear facilities and puts controls in place so these hazards will not occur (e.g., controls that do not allow hazardous materials to escape). These identified vital safety systems = min safe. Min safe systems must be funded. These systems are in place to protect the public and the environment. They come before compliance; if they are not in place, we are not in compliance. DOE will be looking at scrubbing all these min safe systems to ensure other, non min safe activities are not included in these costs. Want to make sure we have the right amount of min safe.

Comment: How is min safe different from making progress? From a funding perspective, is making progress at the top and min safe at the bottom?

Answer: DOE-RL: No. "Min safe" systems are essential and must be in place to protect the public and the environment from hazards.

There are other activities included in the min-safe category, such as roads, operation of groundwater pump-and-treat systems, security, and electrical supply. The Hanford Fire Department is included in min safe along with delivering water to the Central Plateau for the Waste Treatment Plant.

Comment: Regarding the WTP safety culture, I'm an experienced worker. I've worked every kind of job; I've worked jobs where people died. Your safety culture is a split culture. You have a demoralized, fairly intimidated and angry workforce. You have three kinds of supervisors:

- The older, experienced supervisor who does not want to make waves and does what management tells him to do;
- The young one who like the power over others. He doesn't know anything. He will retaliate in a heartbeat. Everyone knows he will get you; and
- Those supervisors who are trying to help. They don't really want to work at Hanford; they know the dangers. They are motivated by their political concerns.

Safety programs are great. Morning safety meetings are great. Safety discussions at town hall meeting are great. But it is different doing the work. If you are on the job and raise questions, you are gone, you are retaliated against.

Answer: DOE-ORP: I appreciate your candor and perspective. I meet regularly with the facility representatives and tour the site monthly, but I do not see your world. We have mechanisms in place for the workers. We have an Employee Concerns Program in the Office of River Protection building where workers can go to express their concerns away from management. We are trying to create a safe haven.

One also has to look at the safety metrics. Bechtel National runs a clean ship. I agree that this is a very complex chemical facility. A lot of groups contribute to this mission. I hope the ones in charge are motivated/committed to safety and safety is being incentivized with the workforce. It is what DOE expects; it is what DOE demands. You provided me a data point to look into; I will start with the facility representative meeting tomorrow.

Comment: I believe Shirley Olinger really tried. She got VPP started. Bechtel can build anything. Design-build will cost you twice as much. You need the older supervisors to teach the younger ones. The Employee Concerns Program means nothing. The rumor mill will get that information back to management in a few minutes. You need to protect these people so they are not afraid.

Answer: DOE-ORP: Voluntary Protection Program (VPP) is powerful, because the workers contribute to this program. Bechtel has VPP star status.